



October 14th, 2022

To: Chair Andrew Klein, WA State Building Code Council

cc: Members of the State Building Code Council

RE: Comment in Support of Residential Code Proposals

Members of the State Building Codes Council,

The Sierra Club is writing in support of the proposed state residential building code updates. Specifically, we strongly support the requirements for heat pump systems in new homes and stricter ventilation for new homes with gas stoves.

The Sierra Club is a national environmental 501c3 non-profit organization. In Washington State alone, we have over 25,000 members, and well over 100,000 supporters working for environmental and climate justice. On behalf of our membership across the state, we urge you to adopt the proposed code updates to help our state transition off of methane gas in our buildings and address the climate crisis and inequity, and to protect public health and safety in Washington.

As you have heard from the countless buildings experts, doctors, engineers, and the environmental, racial, and economic justice advocates that have already testified and written in support of these proposals, this code change will have an array of benefits for our communities, and our climate.

Electrification, and the transition off of fossil fuels in all aspects of our lives, is not a question of if, but when. While we currently have two energy infrastructure systems, gas and electric, only one is compatible with the commitments that our state and federal governments have made to reduce greenhouse gas emissions and mitigate the worst impacts of the climate crisis. In light of this, it is clear that every dollar that we invest in expanding methane gas infrastructure is a dollar that should instead be spent increasing the capacity and resilience of our electrical grid, and expanding renewable energy generation.

It is important to note that, contrary to what the methane gas industry would have us believe, requiring new construction to include heat pumps will not dramatically increase energy loads immediately, but rather will slowly increase energy load over decades. A [study conducted in](#)

[Oregon](#) showed that rapid adoption of high-efficiency heat pump systems would actually reduce winter peak demand from Oregon homes, and that overall peaks would grow slowly, around half a percent per year, which is consistent with past and projected growth rates for annual total electricity loads. Utilities are already required to do long term planning for load growth, and this extended timeline will allow ample opportunity to expand energy generation and grid resilience as new homes and buildings are built all-electric, and existing buildings are retrofitted to run on clean electricity.

The proposed code change will have economic benefits to home buyers as well: RMI's cost benefit analysis for the heat pump proposals found that all-electric homes cost less to build than mixed fuel homes in both Seattle and in Spokane. A 2,400 sq ft code compliant mixed fuel home (with an air conditioner for cooling) costs \$7,587 more than a code compliant all-electric building in Seattle; In Spokane a code compliant mixed fuel building cost \$7,248 more than an all-electric home.

Additionally, it is critical to consider the benefits that this code will have to the health and safety of Washington residents. A [growing body of research has shown significant increases in asthma and asthmatic symptoms in children that grow up in homes with a gas stove](#), and [studies have also shown the sizable outdoor air pollution generated by the use of vented gas appliances such as gas furnaces and hot water heaters](#). These impacts are disproportionately born by historically marginalized communities, such as low income and Black, Indigenous and People of Color (BIPOC) communities.

Beyond the health impacts of burning gas in homes, there is also an immediate threat posed by explosive gas infrastructure. On average, over 3 years (2016-2018), a gas pipeline incident has killed someone, sent someone to the hospital, and/or caused a fire and/or explosion [once every 4 days nationwide](#). Washington is not immune to these dangers; in 2016, a gas pipeline exploded in the Greenwood neighborhood, leveling buildings and sending nine firefighters to the hospital. This threat is particularly important to note in an [earthquake-prone region like ours](#).

The proposed code updates ensure that, as we continue to construct new homes, we are doing so in a manner that is equitable, sustainable and in line with the climate commitments made by Governor Inslee and our legislature. Washington has always been seen as a climate leader -- these code changes are a clear way to act on our commitments and transition away from fossil fuel use in new homes, while protecting the health and safety of WA residents.

It is clear the climate crisis is here, now. We do not have three more years to wait - we must act now to transition off of polluting fossil fuels. We urge you to adopt the proposed amendments for the Washington state residential building codes. Please take this opportunity to move forward common sense policies to reduce emissions, protect public health and safety and ensure that Washington continues to lead the way towards a just transition to clean, renewable electricity.

Thank you for your consideration and your work on behalf of the state.

Dylan Plummer, Senior Campaign Representative, Sierra Club